

REMARKS

In the Office Action, the Examiner:

- rejects claims 1-10 and 15-20 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement;
- rejects claims 1-10 and 15-20 under 35 U.S.C. § 102(e) as allegedly anticipated by ERICKSON et al. (U.S. Patent 6,882,765; hereafter ERICKSON);
- rejects claim 11 under 35 U.S.C. § 103(a) as allegedly unpatentable over CHIU et al. (U.S. Patent Pub. No. 2002/0063916; hereafter CHIU) and PAN (U.S. Patent 7,274,869); and
- rejects claims 12-14 under 35 U.S.C. § 103(a) as allegedly unpatentable over CHIU, PAN and ERICKSON.

Applicant traverses these rejections.

By way of this amendment, Applicant amends claims 1, 2, 4, 6, 7, 9, 11, and 15. No new matter is added. Claims 1-20 are pending.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 1-10 and 15-20 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. While not acquiescing in the Examiner's rejection, but merely to expedite prosecution, Applicant has amended claims 1, 6, and 15 to address the Examiner's concerns. Accordingly, Applicant requests that the Examiner reconsider and

withdraw the rejection of claims 1, 6, and 15 and their respective dependent claims under 35 U.S.C. 112, first paragraph.

Rejection Under 35 U.S.C. § 102(e) based on ERICKSON

Claims 1-10 and 15-20 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by ERICKSON. Applicant respectfully traverses this rejection.

A proper rejection under 35 U.S.C. § 102 requires that a single reference teach every aspect of the claimed invention either expressly or impliedly. Any feature not taught must be inherently present. (See M.P.E.P. § 2131.) Applicant respectfully submits that ERICKSON does not disclose or suggest one or more features recited in claims 1-10 and 15-20.

Amended independent claim 1 is directed to a network including a router and an optical cross-connect system (OXC), a method for responding to a failure, the method comprising detecting the failure in the router; sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure; causing an input working port of the OXC to connect to the input protection port of the router in response to detection of the signal; and transmitting data from the router to the OXC via the input protection port. Applicant submits that ERICKSON does not disclose or suggest one or more of the features of amended claim 1.

For example, ERICKSON does not disclose or suggest sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure. This feature is similar to a feature previously recited in claim 2. With regard to the previously presented claim 2, the Examiner relies on the Abstract, col.

23, ll. 2-5, col. 25, ll. 44-47, and col. 25, ll. 53-57 of ERICKSON for allegedly disclosing, "sending an in-band signal, from the input protection port of the router, to the OXC." (Office Action, pp. 7 and 8.) Applicant disagrees with the Examiner's interpretation of ERICKSON.

The Abstract of ERICKSON discloses:

The present invention provides methods, apparatus and systems for protecting connections between optical cross-connect switches and client equipment. A connection failure is detected, signaled, and a switch made by the client equipment and the optical cross-connect switch to a protection connection between them so as to minimize service interruption. An out-of-band channel or an in-band channel can be used to signal the connection failure.

This section of ERICKSON discloses that an out-of-band channel or an in-band channel can be used to signal the connection failure in a cross-connect switch. This section of ERICKSON does not disclose or suggest sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure, as recited by amended claim 1. ERICKSON does not disclose that the out-of-bound channel or the in-bound channel is a channel on the protection channel, as would be required under the Examiner's interpretation of ERICKSON. IN fact, ERICKSON discloses that the in-band channel is on a working channel. (See e.g., Col. 25, ll. 55 and 56.)

Col. 23, ll. 2-5 of ERICKSON discloses:

Upon detecting a connection failure in one of the links 1506A'-1506N', the client 1502 needs to signal the optical cross-connect switch 1504 as to which link the connection failure has occurred on.

This section of ERICKSON merely discloses that when a link fails, a client (which the Examiner alleges corresponds to the claimed router) needs to signal the optical

cross-connect switch as to on which link the connection failure has occurred. This section of ERICKSON does not disclose or suggest sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure, as recited by amended claim 1. In fact, this section of ERICKSON does not even mention an input protection port of a router; let alone sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure.

Moreover, ERICKSON discloses (e.g., as shown in Fig. 17A) that a failure of a link 1506 is signaled by a client port 1521A, and not by a client protection port 1522, as would be required under the Examiner's interpretation of ERICKSON. (See, e.g. col. 23, ll. 6-26). In fact, no section of ERICKSON discloses or suggests sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure. Therefore, ERICKSON does not disclose or suggest sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure, as recited by amended claim 1.

Col. 25, ll. 44-47 of ERICKSON discloses:

12. The connection protection mechanism of claim 1 wherein, the signaling channel is an in-band signaling channel.

This section of ERICKSON discloses that a signaling channel is an in-band signaling channel. This section of ERICKSON does not disclose or suggest sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure, as recited by amended claim 1. In fact, this section of ERICKSON does not even mention an input protection port of a router; let alone sending a signal

from an input protection port of the router to the OXC, where the signal indicates the failure.

Col. 25, ll. 53-57 of ERICKSON discloses:

14. The connection protection mechanism of claim 12 wherein, the in-band signaling channel is a dedicated signaling link in parallel with each of the pair of working links.

This section of ERICKSON discloses that an in-band signaling channel is a dedicated signaling link in parallel with each of the pair of working links. This section of ERICKSON does not disclose or suggest sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure, as recited by amended claim 1. In fact, this section of ERICKSON does not even mention an input protection port of a router; let alone sending a signal from an input protection port of the router to the OXC, where the signal indicates the failure.

Applicant submits that ERICKSON does not anticipate amended claim 1 for at least these reasons. Accordingly, Applicant requests that the Examiner reconsider and withdraw the rejection of claim 1 under 35 U.S.C. § 102(e) based on ERICKSON.

Claims 2-5 depend from claim 1. Therefore, Applicant submits that these claims are allowable for at least the reasons set forth above with respect to claim 1.

Amended independent claims 6 and 15 recite features similar to the features described above with respect to amended claim 1. Therefore, Applicant submits that ERICKSON does not anticipate claims 6 and 15 for at least reasons similar to the reasons set forth above with respect to amended claim 1. Accordingly,

Applicant requests that the Examiner reconsider and withdraw the rejection of claims 6 and 15 under 35 U.S.C. § 102(e) based on ERICKSON.

Claims 7-10 and 16-20 depend from claims 6 and 15, respectively.

Therefore, Applicant submits that ERICKSON does not anticipate these claims for at least the reasons as set forth above with respect to claim 6 and 15.

Rejection under 35 U.S.C. § 103(a) based on CHIU and PAN

Claim 11 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over CHIU and PAN. Applicant respectfully traverses this rejection

Amended independent claim 11 is directed to an optical cross-connect system comprising a spare port to transmit low priority data to or from a router; and a working port to transmit high priority data to or from a primary router, where the working port is connected to the router in response to a failure of the primary router, and where the transmission of low priority data to or from the router is preempted by the transmission of the high priority data to or from the router, in response to the failure of the primary router. Applicant respectfully submits that CHIU and PAN, whether taken alone or in any reasonable combination, do not disclose or suggest one or more features of claim 11.

For example, CHIU and PAN do not disclose or suggest that the working port is connected to the router in response to a failure of the primary router, and where the transmission of low priority data from the router is preempted by the transmission of the high priority data from the router, in response to the failure of the primary router. Applicant submits that CHIU and PAN do not disclose or suggest the above-identified feature of amended claim 11.

Fig. 3 of CHIU (which is described at ¶ [0044] and ¶ [0045] of CHUI) discloses an OXC_A that is connected to router 100_A and an OXC_B that is connected to router 100_{B1} and router 100_{B2}. Furthermore, router 100_{B1} and router 100_{B2} are connected together by a light path. A light path connects router 100_A and router 100_{B1} during normal operation. If router 100_{B1} fails, OXC_B creates a new light path connection between router 100_A and router 100_{B2}. This new connection uses the same port on router 100_A, as was used to connected to failed router 100_{B1}. Router 100_{B2} connects to the light path using either the same port as was used to connect to router 100_{B1} or a spare port on router 100_{B2} (See, ¶ [0045].) Therefore, CHIU does not disclose or suggest that the working port is connected to the router in response to a failure of the primary router, and where the transmission of low priority data from the router is preempted by the transmission of the high priority data, in response to the failure of the primary router, as recited by amended claim 11. In fact, CHUI does not even mention traffic priority.

PAN discloses finding alternative paths between links, in case of a failed link. Looking at Fig. 2 of PAN, a link 202 and a link 204 are connected by a working path 220. If the working path fails, a primary path 222 is used to connect the link A and the link B. A determination is made as to whether or not the primary path 22 can recover a full bandwidth of the working path 220. If the primary path cannot recover the full bandwidth, an alternate route will be used and the primary path will recover high priority traffic. (See e.g., col. 15, ll. 4-10.) Therefore, PAN does not disclose or suggest that the working port is connected to the router in response to a failure of the primary router, and where the transmission of low priority data from

the router is preempted by the transmission of the high priority data from the router, in response to the failure of the primary router, as recited by amended claim 11. In fact, PAN does not even mention preempting low priority traffic.

Applicant respectfully submits that claim 11 is patentable over CHIU and PAN, whether taken alone or in any reasonable combination. Accordingly, Applicant requests that the Examiner reconsider and withdraw the rejection of claim 11 under 35 U.S.C. 103(a) based on CHIU and PAN.

Rejection under 35 U.S.C. § 103(a) based on CHIU, PAN, and ERICKSON

Claims 12-14 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over CHIU, PAN, and ERICKSON. Applicant respectfully traverses this rejection

Claims 12-14 depend from claim 11. While not concurring in this rejection, Applicant respectfully submits that the disclosure of ERICKSON does not remedy the deficiencies in the disclosures of CHIU and PAN, as discussed above with respect to amended claim 11. Therefore, Applicant submits that claims 12-14 are patentable over CHIU, PAN and ERICKSON, whether taken alone or in any reasonable combination, for at least the reasons as set forth above with respect to claim 11. Accordingly, Applicant requests that the Examiner reconsider and withdraw the rejection of claims 12-14 under 35 U.S.C. § 103(a) based on CHIU, PAN and ERICKSON.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely

allowance of the pending claims. Applicants respectfully request that the present amendment be entered, because the present amendment places the application in immediate condition for allowance. Moreover, Applicants respectfully request entry of the present amendment, because the present amendment places the application in better condition for appeal, should the Examiner continue to contest the patentability of the pending claims.

As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such assertions (e.g., whether a reference constitutes prior art, assertions as to dependent claims, reasons for combining or modifying a reference, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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